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JAN 30 1986

DIVISION OF OIL  
GAS & MINING

P.O. Box 250  
EUREKA, UTAH 84628  
[ 801] 433-6854

L.B. HANNIFIN, JR.  
General Manager

Re: <sup>TRIXIE</sup> Tailings Ponds <sup>ABC</sup> Modification  
ACT/049/009  
Utah County, Utah

Susan C. Linner  
Reclamation Biologist/Permit Supervisor  
Utah Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

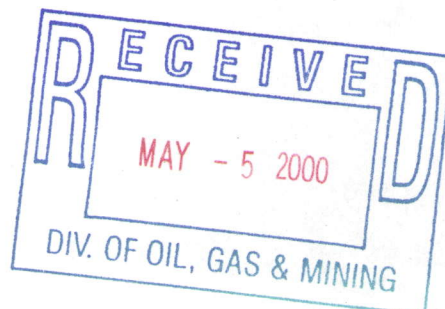
Dear Ms. Linner:

The purpose of this letter is to address the remaining unresolved issues relating to Sunshine's December 1985 Tailings Pond Modification application. It is our hope these application modifications can be quickly processed by the Division. Following are Sunshine's responses to the issues outlined by the Division in your letter dated January 21, 1986.

The Division has stipulated pond liners shall meet the requirements of State Health. Sunshine Mining Company has verbally consented to State Health that all clay liners will meet their prescribed standards and criteria.

Rule M-3 (2) LK

Sunshine Mining Company will use a straw mulch to cover the interim seed program on all downslope sides of tailings dams and soil stockpiles. The mulch will consist of straw used at the rate of 1 ton/acre to cover seeded areas. Ammonium nitrate will also be applied at a rate of 80/100 lbs per acre on all reseeded areas. The mulch seed mixture and fertilizer will then be disked to a depth of 2"-3" to prevent wind erosion.







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Rule M-3 (e) - DC

Sunshine has submitted a map depicting the understurbed watershed from which the runoff will be diverted around the tailings ponds. During a meeting with personnel from your Division at our operations they indicated we may give you the information needed to calculate the peak flow resulting from the 10 year, 24-hour storm. This information will then be used to determine the size of the diversion ditch to carry this flow and we will construct this diversion ditch to meet or exceed design specifications. The necessary information needed to determine design specifications are shown on Attachment C.

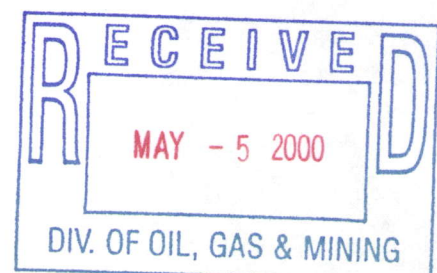
Rule M-5 - JRH

A cost estimate for reclamation, Attachment A, has been completed and Sunshine Mining Company and their Surety Company will prepare a rider to cover these ponds under their present bond contract. This rider will be presented to your Division upon its completion.

Individual estimated acres that will be disturbed are shown on both Attachment B and the plan map.

Rule M-10 (8) - DC

Sunshine Mining Company will design and construct the diversion ditch so that it will be used for natural drainage after the tailings ponds have been reclaimed. This will prevent future erosional problems through the ponds and prevent impounded tailings from being hydraulically transported from their storage site.







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ATTACHMENT A

Tailings Ponds A-C Reclamation Costs

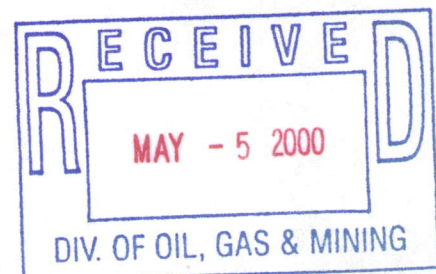
**Tailings and Dams:**

heavy equipment 6 days @ \$90.00/hr	\$ 4,320.00
3-man clean-up crew 3 days @ \$25.00/hr	1,800.00
reveg. eng. 2 days @ \$35.00/hr	560.00
revetetation of 10.01 acres @ \$1000/acre	<u>10,010.00</u>
	\$16,690.00

**Monitoring:**

monitor seeding for 3 years	<u>\$ 760.00</u>
	\$ 760.00

TOTAL: \$17,450.00





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ATTACHMENT B

Estimated acres that will be disturbed  
by constructing tailings ponds A-C

<u>Area</u>	<u>Estimated Acres</u>
Pond A	2.29
Pond B	2.50
Pond C	2.94
Tails Line Corridor	0.32
Access Roads	0.55
Diversion Ditch	0.41
Topsoil Storage Areas	<u>1.00</u>
TOTAL:	<u><u>10.01</u></u>

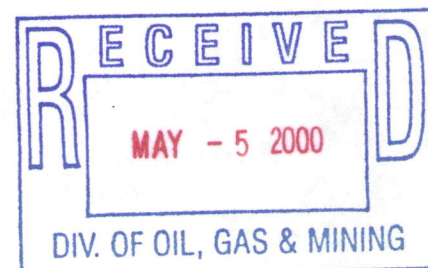
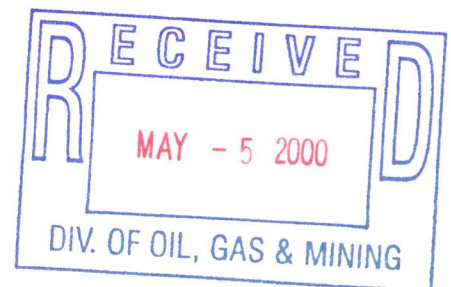
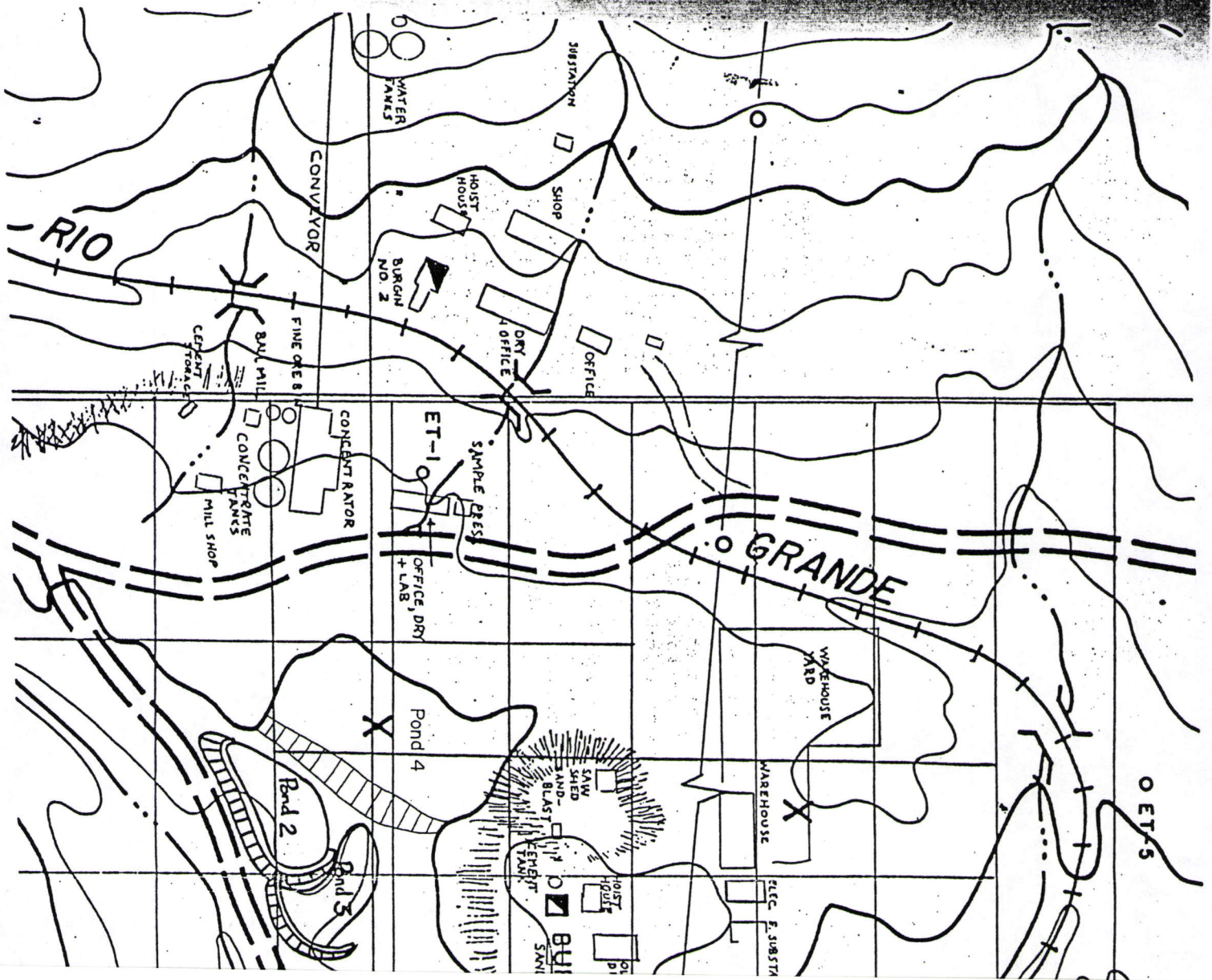




Figure 2 Site Vicinity Map







STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

*File*  
Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

June 12, 1985

*TRIXIE TAILINGS PONDS  
1, 2, 3, 4*

CERTIFIED RETURN RECEIPT REQUESTED  
P-592-429-611

Mr. Leon Munyan  
Sunshine Mining Company  
P.O. Box 250  
Eureka, Utah 84628

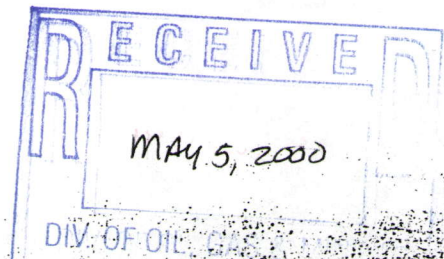
Dear Mr. Munyan:

Re: Trixie Tailings Pond Modifications, New Burgin Mine,  
ACT/049/009, Utah County, Utah

The Division has reviewed information received on June 3, 1985 from jbr Consultants Group concerning modifications to proposed tailings ponds at the Eureka operations.

Approval for these modifications as described in the above mentioned submittal and Sunshine's application, dated April 2, 1985 are hereby granted with the following stipulations:

- E: Additions  
made 6-14-85*
1. Sunshine must provide an accurate map showing the changes to the disturbed area boundaries. These changes can be provided on the drawing labeled, "Burgin, Hunter Shaft and Tailings Pond Reclamation Areas", which was submitted in the 1984 permit application or may be shown on Figure 1., "Site Vicinity Map" dated 5-31-85 as provided by Mr. Buck in your June 3, 1985, submittal.
  2. An addendum to Exhibit "A" of the Surety form must be provided to describe and include those areas to be added to the disturbed area boundaries. The Surety must also be notified and approval of such an addition must be submitted by the Surety to the Division.





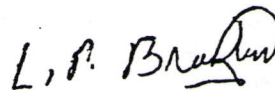
Page 2  
Mr. Leon Munyan  
CT/049/009  
June 12, 1985

A response to both stipulations shall be submitted to the Division no later than 30 days after receipt of this letter and disturbances outside the currently approved disturbed area boundaries shall not be made until both stipulations have been met.

With regard to bonding of the additional disturbed area, Sunshine will not be required to revise their bond at this time. The estimated amount for the additional reclamation work represents a very small percentage of the amount of bond currently posted by Sunshine and contingencies in the current bond estimate are sufficient to allow for such modifications. The Bond amount may be adjusted at a later date if additional modifications are requested or the Bond is adjusted for any other reason.

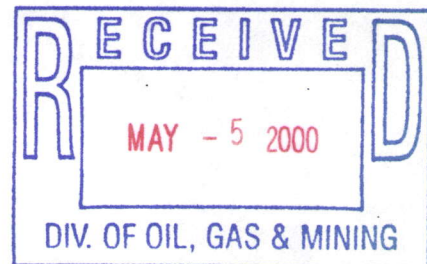
Should you have any further questions concerning meeting the requirements of the stipulations of this approval, please contact Sue Linner or Randy Harden of my staff. Thank you for your cooperation and attention to these remaining concerns.

Sincerely,

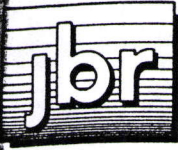


L. P. Braxton  
Administrator  
Mineral Resource Development  
and Reclamation Program

JRH:jvb  
Enclosure  
cc: R. Daniels  
R. Harden  
S. Linner  
1000R-24







## CONSULTANTS GROUP

GEOLOGY

ENGINEERING

ENVIRONMENT

HYDROLOGY

June 3, 1985

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JUN 03 1985

DIVISION OF OIL  
GAS & MINING

Ms. Susan C. Linner  
Permit Supervisor  
Division of Oil, Gas & Mining  
355 W. North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

RE: Trixie Tailings Pond, Sunshine Mining Co., Burgin Project  
ACT/049/009, Utah County

Dear Susan:

Mr. Leon Munyan has asked me to respond to your letter of May 20, 1985 regarding the Division's review of three proposed tailings ponds at the Eureka operations which were described in Sunshine's application dated April 2, 1985. He has also asked me to submit the attached description of an additional pond for your review. To expedite your review of this material, I have included the additional pond in the total disturbed acreages and reclamation cost estimate.

The following responses address the questions in your May 20 letter:

Q. The Sketch is missing the following; title block, scale, contour intervals, north arrow, date, contours of the dike, and reference grid and elevations. (referring to Figures 4, 7, and 9)

A. The figures in the application have figure labels which refer them to the proper text in the application. The scale is shown on each figure as is a north arrow. The contours of the pond are at a one foot interval. The date of the figures are the same as the document, April 2, 1985. The locations of the ponds are clearly shown on Figure 2 of the document thus negating the need for a reference grid. The topographic relationships of the ponds to the rest of the facilities are also shown on Figure 2 negating the need to have individual elevation control on each pond. Cross-sections of each dike are included with this letter. These show the same basic information which would be derived from contour maps of each dike.



Q. A map must be provided, to scale, showing the existing affected area boundaries, including the acreage of those areas. Additionally, the three ponds shall also be shown and shall include the respective acreage to be disturbed in each area.

A. The map included in the 1984 application and labeled, "Burgin, Hunter Shaft and Tailings Pond Reclamation Areas" shows the outline of the permit area. In the vicinity of the Burgin Shafts the outline encompasses the sites of Ponds 2, 3, and 4 which are now being proposed for tailings disposal. It is the intent of Sunshine to reclaim all disturbed areas within the permit area boundary. The map which appears as Figure 2 in the April 2, 1985 application is a portion of the same map and clearly shows that Ponds 2 and 3 fall within the permit boundary. Pond 1 falls outside of the permit boundary and requires Division approval prior to construction. The 1984 permit describes the acreage total for the Burgin Mill area as 29.4 acres. The total acreage of the proposed Trixie tailings ponds is 3.4 acres. Because the base map for the 1984 and 1985 applications is the same and comparison of the maps clearly shows the relationships of the various facilities Sunshine Mining considers preparation of a third map to be duplicatory and unnecessary.

Q. Any enlargements of these structures or use of additional areas for tailings disposal must be approved in advance by the Division.

A. Sunshine will comply with such notification as demonstrated by this application.

Q. Quantities, productivity and cost estimates must be provided for reclamation construction of the proposed tailings pond additions.

A. The estimated reclamation costs of the ponds follows:

Pond 1

Spread 800yds. topsoil w/ dozer, 2hrs. \$120.00@	\$240.00
Hydroseed, fertilize, mulch 1.2 acres \$1,000.00@	1,200.00

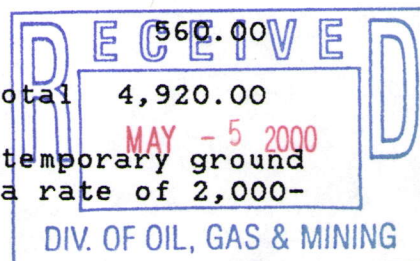
Ponds 2-4

Bulldoze dike freeboards, 2hrs.@ x 3 x \$120.00	720.00
Hydroseed and mulch 2.2 acres, \$1,000.00@	2,200.00

Supervision for 2 days, \$35.00/hr. x 16

Total 4,920.00

Q. Pond outslopes should be seeded with the temporary ground cover mix this fall. Mulch should be applied at a rate of 2,000-





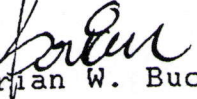
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2,500 lbs/acre.

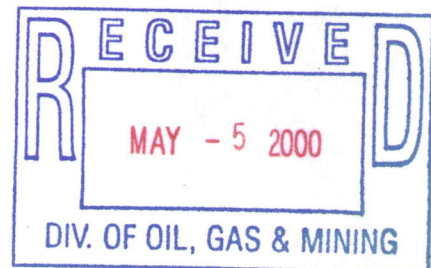
A. This will be complied with in regards to the dikes for Ponds 1 and 4. The other dikes are already as revegetated as they ever will be, having been seeded some years ago.

If you have any questions on this material please call me or Mr. Munyan.

Sincerely,

  
Brian W. Buck

enclosures





Page 2  
Mr. Leon Munyan  
CT/049/008  
May 20, 1985

Rule M-5 - JRH

Quantities, productivity and cost estimates must be provided for reclamation construction of the proposed tailings pond additions. While the addition of the tailings ponds may be minor with respect to the total bond for Sunshine, these costs and design criteria for reclamation construction must be submitted with the proposal. In all likelihood, these costs will not require modification of the current bond amount required by Sunshine.

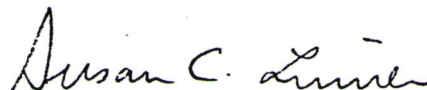
Rule M-10(12) - LK

Pond out slopes should be seeded with the temporary ground cover mix (Table 1) this fall. Mulch should be applied at a rate of 2,000-2,500 lbs/acre.

When these issues have been adequately addressed, the Division can issue an approval to begin use of the tailings ponds.

Please contact me if I can provide assistance.

Sincerely,



Susan C. Linner  
Reclamation Biologist/  
Permit Supervisor

jvb  
cc: R. Harden  
L. Kunzler  
T. Suchoski  
0028R-15

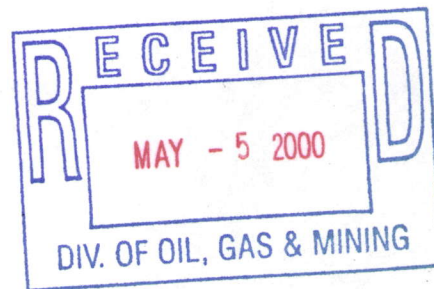
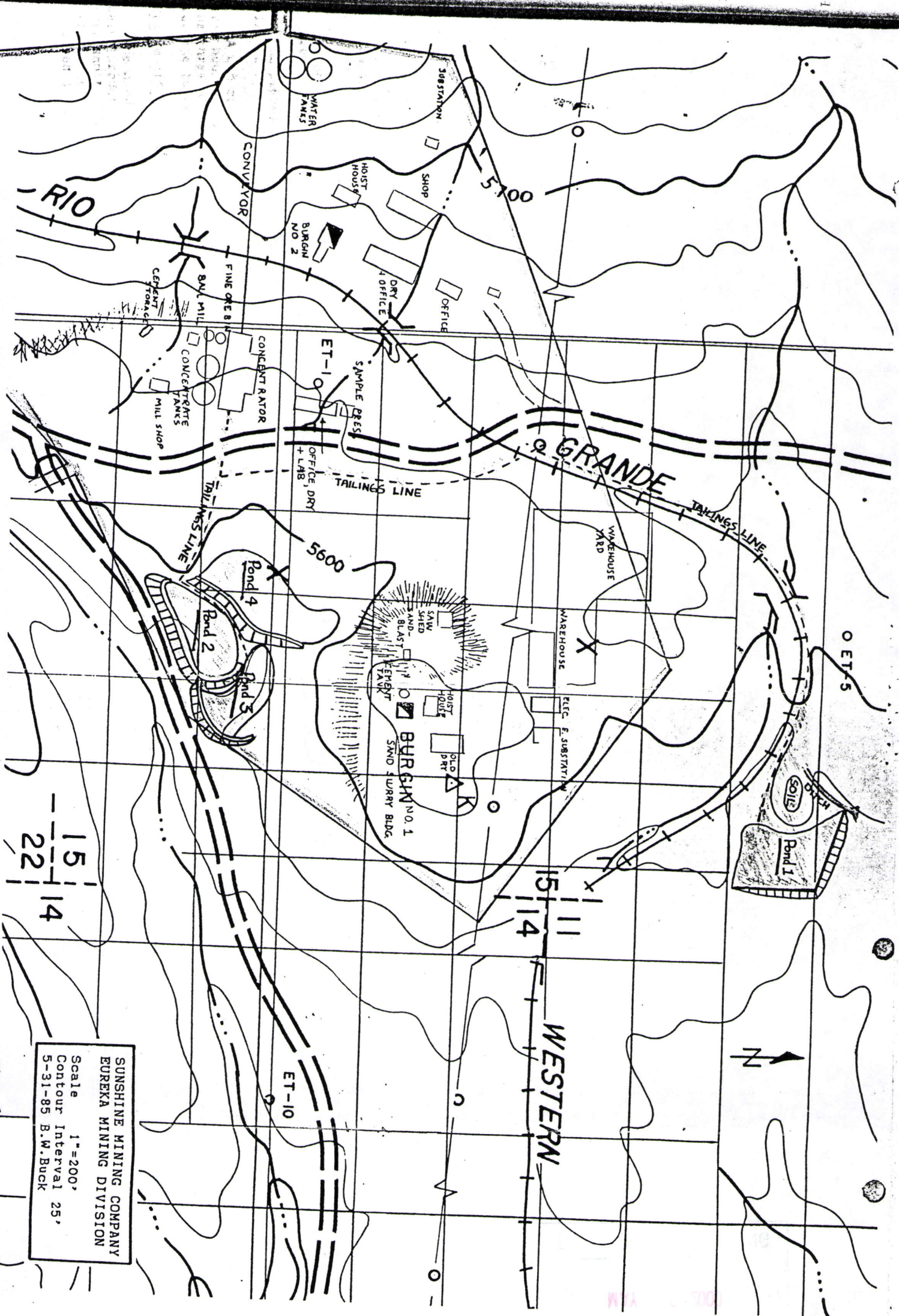




Figure 1. Site vicinity map.



TRIXIE TAILINGS PONDS 1,2,3,4  
APRIL 2, 1985 SUBMISSION



